REMARKS

Claims 16 and 17 have been amended. Claims 22-25 have been added. Claims 18-21 have been withdrawn from consideration. Claims 2-8, 13-17 and 22-25 remain for further consideration. No new matter has been added.

The objections and rejections shall be taken up in the order presented in the Official Action.

7. Claims 18-21 currently stand rejected for allegedly failing to comply with the written description requirement.

Applicants respectfully submit that this rejection is now moot since claims 18-21 have been withdrawn as a result of the restriction requirement and constructive election.

9. Claims 2-8 and 13-17 currently stand rejected for allegedly failing to point out and distinctly claim the subject matter deemed to be the present invention.

Applicants respectfully submit that this rejection is now moot as claims 16 and 17 have been amended.

12. Claims 16, 2-7, 13, 14 and 17 currently stand rejected for allegedly being obvious in view of U.S Patent 5,479,050 to Pritchard et al. (hereinafter "Pritchard") and U.S. Patent 5,365,409 to Kwon et al. (hereinafter "Kwon").

CLAIM 16

Amended claim 16 recites an integrated circuit. The circuit includes the features of:

"a semiconductor die;

a carrier device comprising a die paddle onto which the die is attached, where a plurality of stamped pedestals are arranged on the carrier device exteriorly surrounding and adjacent to the die paddle, where the carrier device, the die paddle and the stamped pedestals form a single piece unitary structure;

a plurality of metallic leads each comprising an inner lead portion that extends to an outer lead portion;

a first bond wire extending from the die to a first of the plurality of stamped pedestals, and a second bond wire extending from the first of the plurality of stamped pedestals to an inner lead portion; and

a package that encapsulates the semiconductor die, the die paddle, the first and second bond wires and the inner lead portions." (cl. 16).

The Official Action acknowledges that Pritchard fails to teach or suggest "*that the plurality of leads are metallic, the second bond wire extends from the first of the plurality of stamped pedestals to the inner lead portion, and a package that encapsulates the semiconductor die, the die paddle, the first and second bond wires and the inner lead portions.*" (Official Action, pg 7). Thereafter, the Official Action contends that "*[i]t would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the device in Pritchard such that the second bond wire extends from the stamped pedestal to the inner lead portion since Pritchard discloses that electrical connections may be formed between the die, pedestals, and surrounding leads, and kwon discloses that connections between pedestals and surround leads can be made.*" (Official Action, pg 7). Applicants respectfully disagree. Specifically, applicants respectfully submit that neither Pritchard nor Kwon are being properly considered as a whole. See *In re Wesslau*, 353 F.2d 238, 241 (CCPA 1965) (The court asserted that "*it is impermissible within the framework of section 103 to pick and choose from any one reference only as much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art.*"). See also *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443 (Fed. Cir. 1986) and Chisum on

Patents 5.03(F) ("*The court asserted that a single line in a prior art reference should not be taken out of context and relied upon with the benefit of hindsight to show obviousness. Rather, a reference should be considered as a whole, and portions arguing against or teaching away from the claimed invention must be considered.*").

First, Pritchard teaches, as illustrated in FIGS. 1 to 3, that that "*[b]ridges 12 and 13 are stamped from a part of die mount pad 16....*" (Pritchard, col. 1, line 67 to col. 2, line 1). "*Ground wires are bonded to the tops (12a and 13a) of the pedestals* [i.e., the bridges 12 and 13] *by wires 14 and 15. Connections to the die are made to ground pads on the die.*" (Pritchard, col. 2, lines 12-15). "*At two ends of die 33 are raised pedestals 23 and 25 formed from the surface of die mount pad 21. Bridges, and therefore die mount pad 21, are electrically connected to die 33 by wires 24 and 26.*" (Pritchard, col. 2, lines 28-31). Further, as illustrated in FIG. 2, the die mount pad 21 is directly coupled to two sets of leads on opposing ends of the die mount pad 21. Thus, according to a fair and proper reading, Pritchard teaches electrically connecting the ground pads on the die 11 (see FIG. 1) to the two sets of grounding leads directly coupled to the die mount pad 21 (see FIG. 2). That is, the ground wires 14, 15 connect the ground pads on the die 11 to the pedestals / bridges 12, 13. The pedestals / bridges 12, 13 are interconnected with the die mount pad 21, which is connected to the grounding leads. (Pritchard, FIGs. 1 and 2). Notably, according to a fair and proper reading of Pritchard, this direct connection between the grounding leads and the ground wires 14, 15 via pedestals 12, 13 may prevent bond destruction during temperature cycling and thermal shock. (Pritchard, col. 1, lines 35-45).

As a result of the foregoing, Pritchard teaches away from incorporating the bonding wires 162 as taught in Kwon (see Kwon, FIG. 5) to connect the pedestals 12, 13 to the grounding leads or leads 17, 18 in Pritchard. (A) The bonding wires 162 connecting the interposers/traces 158 to

the bonding fingers 156 as taught in Kwon would negate the limitation of the direct connection between the pedestals 12, 13 and the grounding leads coupled to the die mount pad 21 as taught in Pritchard. That is, the electrical connection between the stamped pedestals 12, 13 and the grounding leads through the die mount pad 21 would become redundant. (B) Pritchard explicitly teaches away from the addition of the bonding wires 162 as taught in Kwon since such wires may fracture and sag during temperature cycling and thermal shock, whereas the single structural connection between the grounding wires 14, 15 and the grounding leads via the bonding pad 21 as taught in Pritchard may prevent such destruction. (see Pritchard, col. 1, lines 13-33 and lines 35-45).

Second, as set forth above, according to a fair and proper reading of Pritchard as a whole, the tops of the pedestals, the raised pedestals themselves, the die mount pad and the die are electrically interconnected, where the pedestals are formed by stamping the die mount pad. (Pritchard, col. 1, line 62 to col. 2, line 38). In contrast, according to a fair and proper reading of Kwon as a whole, the bonding pad 102, 152 is electrically isolated from the traces/interposers 110, 158 (which the Action equates to the pedestals in Pritchard), the leads 106, 156, and the die 104, 154. (see Kwon, col. 5, line 57 to col. 6, line 50). Further, as illustrated in FIGS. 4 and 5, the bonding pad 102, 152 and the traces/interposers 110, 158 are each separate and distinct elements. (see Kwon, col. 5, line 57 to col. 6, line 50). Specifically, Kwon teaches that the integrated-circuit package 100, 150 "*uses an **electrically-insulated**, heat-conducting substrate 102 **as a bonding pad** for an integrated-circuit die 104. The electrically-insulated, heat-conducting substrate 102 is formed of a ceramic material such as alumina nitride, beryllium oxide, a very thin polymeric film, on an equivalent material having good heat conduction characteristics.*" (Kwon, col. 5, lines 57-65, emphasis added).

As a result, Kwon teaches away from the electrically interconnected pedestals as taught in Pritchard. Specifically, Pritchard teaches that the pedestals 12, 13 are electrically connected to the die mount pad 21 which, according to a fair and proper reading, is electrically connected to the grounding leads. (Pritchard, col. 1, line 62 to col. 2, line 38). In contrast, Kwon teaches using the bonding wires to connect the electrically insulated (i.e. non-electrically connected) traces/interposers 110, 158 and bonding fingers 156. (see Kwon, col. 5, line 57 to col. 6, line 50).

In summary, it is submitted that a person of ordinary skill in the art would not have been motivated to combine the teachings of Pritchard and Kwon as the two references respectively teach away from each other. Therefore, applicants respectfully submit that claim 16 is not obvious in view of Pritchard and Kwon, and request that this rejection be withdrawn.

CLAIM 17

Applicants respectfully submit that claim 17 is patentable for at least the reasons as set forth above with respect to claim 16. Specifically, a person of ordinary skill in the art would not have been motivated to combine the teachings of Pritchard and Kwon as the two references respectively teach away from each other.

CLAIMS 2-7 AND 13-14

Applicants respectfully submit that these rejections are now moot since claims 16 and 17 are patentable for at least the reasons as set forth above.

13. Claims 8 and 15 currently stand rejected for allegedly being obvious in view of Kwon, Pritchard and U.S. Patent 6,365,976 to Carter, Jr. et al. (hereinafter "Carter").

Applicants respectfully submit that these rejections are moot since claims 16 and 17 are patentable for at least the reasons as set forth above.

For all the foregoing reasons, reconsideration and allowance of claims 2-8, 13-17 and 22-25 is respectfully requested.

If a telephone interview could assist in the prosecution of this application, please call the undersigned attorney.

Respectfully submitted,

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